Development Disparities in Odisha

SAMPLE

नमूना • SAMPLE

Development Disparities in Odisha

Dr. Prasanta kumar Pradhan

SAMPLE

AKHAND PUBLISHING HOUSE
DELHI (INDIA)

Published by



AKHAND PUBLISHING HOUSE

Distributors, Library Supplier, Online Bookstore & Exporter

L-9A, First Floor, Street No. 42,
Sadatpur Extension, Delhi-110094 (INDIA)
Phone No.: 9968628081, 9555149955 & 9013387535
E-mail : akhandpublishinghouse@gmail.com,
akhandpublishing@yahoo.com
Website : www.akhandbooks.com

Development Disparities in Odisha

© Author
First Edition 2018
ISBN 978-81-939342-9-6

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, transmitted or utilized in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the copyright owner Author/Editors. Application for such permission should be addressed to the Publisher and Author/Editors. Please do not participate in or do not encourage piracy of copyrighted materials in violation of the author's rights. Purchase only authorized editions.

The responsibility for facts stated, opinion expressed or conclusions reached and plagiarism, if any, in this book is entirely that of the author. Neither the publishers nor the editor will be responsible for them whatsoever.

Printed in India

Published by Jhapsu Yadav for Akhand Publishing House, Delhi.

AKHAND SAMPLE

DEDICATED

TO MY FATHER
LATE KAILASH CHANDRA PRADHAN
AND
MOTHER

Mrs. LOVABATI PRADHAN

SAMPLE

नमूना • SAMPLE

Preface

'Development' is a multidimensional concept which is contested both theoretically and politically. Further it is argued that 'development' encompasses continuous change in several aspects of human society. Thus, the dimensions of development include economic, social, political, legal and institutional, the environmental, religious and cultural aspects. However, historically the most widely and dominated meaning of development refers to the temporal increase of the Gross National Product (GNP), although, development measured in terms of money values has been questioned and critiqued by many economists. Realizing the intrinsic complexities and inadequacies of GNP, alternative models of development are being experimented over the time with an emphasis on macroeconomic levels of development presupposing that economic growth will trickle down to the unreached at the bottom end of the scale. Further there are a good number of proposed models to explain how economic systems develop to generate growth.

Inter regional disparity in levels of development is a major issue especially in less developed countries like India. Growing economic and social disparities among regions of a country or among districts of a state generate detrimental socio-economic and political outcomes. In order to mitigate the adverse effects of disparities over space and improve the conditions of people living in backward regions, regional development planning and projects are being executed by the Government and planning authorities. In any country, region or district of state, levels of development can be observed from geophysical, social and economic dimensions . The sectors in a district may be totally developed or backward. Other possibilities could be that a district may experience uni-sectoral, bi-sectoral or multi-sectoral development or backwardness. Moreover, development as a broad concept encompasses comprehensive issues like health, education,

FREE SAMPLE

livelihood, poverty etc.

The objectives of this book "**Development Disparities In Odisha**" is to make an assessment of the level of development achieved in the districts of Odisha in terms of various development indicators relating to agriculture, industry and basic infrastructure. In this study agricultural development pertains to agricultural sector and industrial development relates to manufacturing sector which includes both MSME and registered manufacturing. Basic infrastructure development comprises three broad areas such as (a) physical infrastructure, (b) financial infrastructure and (c) social infrastructure.

The book has made an attempt to classify districts on the basis of differential levels of development sector wise (Agriculture, Industry and Basic Infrastructure and Services) as well as in terms of overall level of development taking into to account the disparities at the inter-district level in all three sectors. It also tried to find out whether there is convergence or divergence in the levels of development across the districts in relation to the state over the years. For the purpose of estimation and analysis the study followed three methods such as (i) Index Method, (ii) Deprivation Index Method and (iii) Principal Component Analysis Method to compute development indices for all 30 districts separately for the specified time period. A total of twenty nine indicators of development comprising eight from the agriculture, eight from the industry and thirteen from the basic infrastructure and services sector, were selected for the purpose.For comparison among the districts over time the study has classified all the districts into three categories namely; developed (D), moderately developed (MD) and less developed (LD). Further, the book has used the most commonly used tools like ranking, disparity ratio, CV and Gini Co-efficient in order to examine the level of disparity in the districts of Odisha.

With much pride and delight I acknowledge my heartfelt sense of gratitude and indebtedness to Dr. Subas .C. Kumar, Former Professor of Economics (NABARD Chair), Bhubaneswar for his invaluable guidance, supervision and insuperable.

I owe my sincere thanks to Mr. Anil Kumar Parhi, Senior Lecturer in English, K.B. College, Baranga and Dr. Prasant Kumar Panda, Associate Professor, Central University, Tamil Nadu, and Dr. M.M. Mahala, Ex Reader in Odia of Prananath College

(Autonomous), Khordha for their constant encouragement for the publication of this book..

I am deeply conscious of the fact that this book neither would have been pursued nor completed but for the tremendous appreciation I received from my elder brother Shri Sukanta Pradhan, Additional Secretary to the Governer Odisha, my wife Chinu and my daughter Mamuni ,My brother Dusmanta Pradhan and Sister in law Mrs. Sanjukta Rout Verma and nephew Subhankar for their constant encouragement for the publication of this book..

I express my sincere gratitude to Shri Jhapsu Yadav, Akhand Publishing House, Delhi for his kind cooperation and tireless efforts for giving thr shape of the book in the present form.

Last but not least I pray before almighty for being with me through out.

Dr. Prasanta Kumar Pradhan

SAMPLE

नमूना • SAMPLE

List of Tables

Table No.	Title	Page No.
4.1	Districts of Odisha	51
4.2	Sectoral Composition of Gross State Domestic Product of Odisha: 2004-5-2013-14 (2004-05 prices)	54
4.3	Agricultural Profile of Odisha	56
4.4	Industrial Profile Of Odisha	57
4.5	Infrastructural Profile of Odisha	58
4.6	Profile of Angul, Balasore, Baragarh, Bhadrak and Bolangir Districts of Odisha.	62
4.7	Profile of Boudh, Cuttack, Deogarh, Dhenkanal and Gajapati Districts in Odisha	68
4.8	Profile of Ganjam, Jagatsinghpur, Jajpur, Jharsugura and Kalahandi Districts in Odisha	73
4.9	Profile of Kandhamal, Kendrapara, Keonjhar, Khurda and Koraput Districts in Odisha	81
4.10	Profile of Malkangiri, Mayurbhanj Nawrangapur, Nayagarh and Nuapada Districts in Odisha	87
4.11	Profile of Puri, Rayagada, Sambalpur, Sonepur and Sundargarh Districts in Odisha	93
5.1	Agro-Climatic Zones of Odisha	98
5.2	Operational Holdings in Odisha	99

SAMPLE

5.3	Basic Indicators of Agriculture in Odisha	100
5.4	Agriculture in Odisha vis-a-vis India	101
5.5	Percentage of Cultivable Land to Total Land Area and Net Area Sown to Cultivable Land in Districts of Odisha for the Year 1994-95 and 2011-12	104
5.6	Percentage of Irrigation Potential Created to Net Sown Area in Districts of Odisha for the year 1994-95 and 2011-12	106
5.7	Cropping Intensity in Districts of Odisha for the year 1994-95 and 2011-12	107-108
5.8	Average Yield of Food Grains in Districts of Odisha for year 1994-95 and 2011-12	109-110
5.9	Percentage of HYV Area to Net Sown Area in Districts of Odisha for the year 1994-95 and 2011-12	111
5.10	Average Consumption of Fertilizer in Kg Per Hectare in Districts of Odisha for the year 1994-95 and 2011-12	113
5.11	Percentage of Agriculture Workers to Total Main Workers in Districts of Odisha for the Year 1994-95 and 2011-12	115
5.12	Ranking of Districts of Odisha on the basis of level of Development in Agriculture by Indexing Method	117
5.13	Zone wise Classification of Districts on the basis of Level of Agricultural Development by Indexing Method:1994-95 and 2011-12	118
5.14	Ranking of Districts of Odisha on the basis of level of Development in Agriculture by Deprivation Index Method	121
5.15	Zone wise Classification of Districts on the basis of Levels of Agricultural Development	

SAMPLE

	by Deprivation Method:1994-95 and 2011-12	122
5.16	Correlation Matrix	124
5.17	The Eigenvalues and Percentage of Variance	125
5.18	Weights of the Principal Components	125
5.19	Ranking of Districts of Odisha on the basis of level of Development in Agriculture by PCA Method	126-127
5.20	Zone wise Classification of Districts on the Basis of Level of Agricultural Development by PCA Method:1994-95 and 2011-12	127-128
5.21	Ranking of top and bottom Six Districts of Odisha in terms of Agricultural Development Index for the year 1994-95 and 2011-12	130
5.22	Disparities in Agricultural Development Indicators for the year 1994-95 and 2011-12	131
5.23	Disparities in Agricultural Development Index for the year 1994-95 And 2011-12	132
5.24	District Wise Agricultural Development Indices in relation to the state by Indexing Method: 1994-95 and 2011-12	134
6.1	Major Industrial areas/zones in Odisha	139
6.2	Sector wise Industries operating in Odisha	140
6.3	Percentage share of registered and unregistered manufacturing units of Odisha	140
6.4	Decadal growth rates of contribution of Industrial subsectors to GSDP: Odisha	142
6.5	Odisha's share in all India Organised Manufacturing sector by Industrial parameters	144
6.6	Definition of MSME in India	146
6.7	Percentage of Registered Factory	

SAMPLE

	workers to total workforce	149
6.8	Number of Registered Factories per 1 lakh population	151
6.9	Number of Workers in Registered Factories per 1 lakh population	153
6.10	Capital Investment (In Lakh) in Registered Manufacturing per unit	154
6.11	Percentage of Workers in MSME to total workforce	156
6.12	MSME units per one lakh population	157
6.13	Employment generated in MSME per one lakh population	159
6.14	Capital Investment in (Rs. Lakh) per MSME unit	160
6.15	Ranking of Districts of Odisha on the basis of level of Industrial Development by Indexing Method	162
6.16	Classification of Districts on the basis of level of Industrial Development by Indexing Method:1994-95 and 2011-12	163-164
6.17	Ranking of Districts of Odisha on the basis of level of Industrial Development by Deprivation Index Method	166
6.18	Classification of Districts on the basis of level of Industrial Development by Deprivation Index Method:1994-95 and 2011-12	167
6.19	Correlation Matrix	170
6.20	The Eigenvalues and Percentage of Variance	170
6.21	Weights of the Principal Components	170
6.22	Ranking of Districts of Odisha on the basis of level of Industrial Development	

ARTI SAMPLE

	by PCA Method	171
6.23	Classification of Districts on the basis of level of Industrial Development by PCA Method:1994-95 and 2011-12	172
6.24	Ranking of top and bottom Six Districts of Odisha in terms of Industrial Development Index for the year 1992324-95 and 2011-12	174
6.25	Disparities in Industrial Indicators for the year 1994-95 and 2011-12	175
6.26	Disparities in Industrial Development Index for the year 1994-95 and 2011-12	176
6.27	District Wise Indices of Industrial Development in relation to the state by Indexing Method : 1994-95 and 2011-12	177-178
7.1	Physical Infrastructure of India: 2013	187
7.2	Infrastructural Quality Indicators: 2009-10 (Weighted Average)	188
7.3	Physical Infrastructure of Odisha	190
7.4	Literacy rate in Districts of Odisha	194
7.5	Distribution of urban Population in Districts of Odisha	195
7.6	Number of Primary and Middle Schools per 10,000 Population in Districts of Odisha	197
7.7	Number of High Schools per 10,000 population in Districts of Odisha	198
7.8	Number of Colleges per one lakh population in Districts of Odisha	199
7.9	Number of Hospitals, Primary Health Centres, Dispensaries per lakh population in Districts of Odisha	201
7.10	Number of Hospitals, Primary Health Centres, Dispensaries per lakh population in Districts of Odisha	203

SAMPLE

7.11	Road Length in km per lakh population	205
7.12	Road Length in km per 100 sq. km Area	206
7.13	Percentages of Villages Electrified in Districts of Odisha	208
7.14	Number of Post Offices per 10000 population in Districts of Odisha	210
7.15	Number of Banks per lakh population in Districts of Odisha	212
7.16	Number Of PACS Per 10,000 Population In Districts of Odisha	213
7.17	Ranking of Districts of Odisha on the basis of level of BIS Development by Indexing Method	216
7.18	Classification of Districts on the basis of level of BIS Development by Index Method: 1994-95 and 2011-12	217
7.19	Ranking of Districts of Odisha on the basis of level of BIS Development by Deprivation Index Method	219
7.20	Classification of Districts on the Basis of level of BIS Development by Deprivation Index Method: 1994-95 and 2011-12	220
7.21	Correlation Matrix	222
7.22	The Eigenvalues and Percentage of Variance	222
7.23	Weights of the Principal Components	223
7.24	Ranking of Districts of Odisha on the basis of level of BIS Development by PCA Method	225
7.25	Classification of Districts on the basis of level of BIS Development by PCA Method: 1994-95 and 2011-12	226
7.26	Ranking of top and bottom Six Districts of Odisha in terms of Basic Infrastructure and Services Development Index for the	

ORT SAMPLE

	year 1994-95 and 2011-12	229
7.27	Disparity in Basic Infrastructure and Services (BIS) Indicators for the year 1994-95 and 2011-12	230
7.28	Disparities in BIS Development Indices for the year 1994-95 and 2011-12	232
7.29	District Wise BIS Development Indices in relation to the State by Indexing Method: 1994-95 and 2011-12	233-234
8.1	Overall Development Indices for the Districts of Odisha by Indexing Method	238
8.2	Classification of Districts on the basis of Levels of Overall Development by Indexing Method: 1994-95 and 2011-12	239
8.3	Overall Development Indices for the Districts of Odisha by Deprivation Index Method	242
8.4	Classification of Districts on the basis of Overall Levels of Development by Deprivation Index Method: 1994-95 and 2011-12	243
8.5(a)	Correlation Matrix : 1994-95	245
8.5(b)	Correlation Matrix : 2011-12	246
8.6	The Eigenvalues and percentage of Variance	247
8.7	Weights of the Principal Components	248
8.8	Overall Development Indices for the Districts of Odisha by PCA Method	250
8.9	Classification of Districts on the Basis of Overall Level of Development by PCA Method: 1994-95 and 2011-12	251
8.10	Ranking of top and bottom Six Districts of Odisha on the basis of Overall Development Index for the year 1994-95 and 2011-12	254
8.11	Disparity in the Levels of Overall Development of Districts in Odisha for	

ATI SAMPLE

नमूना • SAMPLE

List of Figures

Figure No.	Title	Page No.
3.1	Flow Chart for the choice of the best Method	40
4.1	Sectoral Shares in GSDP of Odisha (2004-05 Prices)	55
5.1	Land Holding Pattern in Odisha	99
5.2	Lorenz Curve for Agricultural Development Index by Indexing Method : 1994-95	133
5.3	Lorenz Curve for Agricultural Development Index by Indexing Method : 2011-12	133
5.4	Lorenz Curve for Agricultural Development Index by Deprivation Index Method : 1994-95	133
5.5	Lorenz Curve for Agricultural Development Index by Deprivation Index Method : 2011-12	133
5.6	Lorenz Curve for Agricultural Development Index by PCA Method : 1994-95	133
5.7	Lorenz Curve for Agricultural Development Index by PCA Method : 2011-12	133
6.1	Registered and unregistered manufacturing units (In Percentage)	141
6.2	Growth of SSI/MSME units in Odisha	147
6.3	Lorenz Curve for Industrial Development Index by Indexing Method : 1994-95	176
6.4	Lorenz Curve for Industrial Development Index by Indexing Method : 2011-12	176

SAMPLE

6.5	Lorenz Curve for Industrial Development Index by Deprivation Index Method : 1994-95	176
6.6	Lorenz Curve for Industrial Development Index by Deprivation Index Method : 2011-12	176
6.7	Lorenz Curve for Industrial Development Index by PCA Method : 1994-95	177
6.8	Lorenz Curve for Industrial Development Index by PCA Method : 2011-12	177
7.1	GDP and Infrastructure growth in India	188
7.2	Infrastructure Development Index of 16 major Indian States	189
7.3	Lorenz Curve for BIS Development Index by Indexing Method : 1994-95	232
7.4	Lorenz Curve for BIS Development Index by Indexing Method : 2011-12	232
7.5	Lorenz Curve for BIS Development Index by Deprivation Index Method : 1994-95	232
7.6	Lorenz Curve for BIS Development Index by Deprivation Index Method : 2011-12	232
7.7	Lorenz Curve for BIS Development Index by PCA Method : 1994-95	233
7.8	Lorenz Curve for BIS Development Index by PCA Method : 2011-12	233
8.1	Lorenz Curve for Level of Overall Development Index by Indexing Method : 1994-95	256
8.2	Lorenz Curve for Level of Overall Development Index by Indexing Method : 2011-12	256
8.3	Lorenz Curve for Level of Overall Development Index by Deprivation Index Method : 1994-95	256
8.4.	Lorenz Curve for Level of Overall Development Index by Deprivation Index Method : 2011-12	256

अप्रकाशित SAMPLE

8.5 Lorenz Curve for Level of Overall Development Index by PCA Method : 1994-95 256

8.6 Lorenz Curve for Level of Overall Development Index by PCA Method : 2011-12 256

SAMPLE

नमूना • SAMPLE

List of Maps

Map No.	*Title*	*Page No.*
4.1	District Map of Odisha	52
5.1	Levels of Agricultural Development by Indexing Method :1994-95	119
5.2	Levels of Agricultural Development by Indexing Method :2011-12	120
5.3	Levels of Agricultural Development by DI Method :1994-95	123
5.4	Levels of Agricultural Development by DI Method :2011-12	123
5.5	Levels of Agricultural Development by PCA Method :1994-95	128
5.6	Levels of Agricultural Development by PCA Method :2011-12	129
6.1	Levels of Industrial Development by Indexing Method : 1994-95	164
6.2	Levels of Industrial Development by Indexing Method : 2011-12	165
6.3	Levels of Industrial Development by Index Deprivation Index Method : 1994-95	168
6.4	Levels of Industrial Development by Index Deprivation Index Method : 2011-12	168
6.5	Levels of Industrial Development by PCA Method : 1994-95	172

ARTI SAMPLE

6.6	Levels of Industrial Development by PCA Method : 2011-12	173
7.1	Levels of BIS Development by Indexing Method : 1994-95	217
7.2	Levels of BIS Development by Indexing Method : 2011-12	218
7.3	Levels of BIS Development by Deprivation Index Method : 1994-95	220
7.4	Levels of BIS Development by Deprivation Index Method : 2011-12	221
7.5	Levels of BIS Development by PCA Method : 1994-95	227
7.6	Levels of BIS Development by PCA Method : 2011-12	227
8.1	Levels of Overall Development by Indexing Method : 1994-95	240
8.2	Levels of Overall Development by Indexing Method : 2011-12	240
8.3	Levels of Overall Development by Deprivation Index Method : 1994-95	244
8.4	Levels of Overall Development by Deprivation Index Method : 2011-12	244
8.5	Levels of Overall Development by PCA Method : 1994-95	252
8.6	Levels of Overall Development by PCA Method : 2011-12	252

SAMPLE

Contents

	Preface	*vii*
	List of Table	*xi*
	List of Figures	*xix*
	List of Map	*xxiii*
1.	Introduction	1
2.	Review of Literature	17
3.	Methodology	32
4.	Socio-Economic and Geophysical Profile of Odisha and Its Districts	50
5.	Disparities in Agricultural Development in Odisha	96
6.	Industrial Development Disparities in Odisha	136
7.	Inter District Developmental Disparities in Basic Infrastructure and Services (BIS) in Odisha	179
8.	Inter District Disparity in Overall Development in Odisha	235
9.	Summary, Conclusions and Suggestions	259
	References	*271*

SAMPLE

नमूना • SAMPLE

1

INTRODUCTION

'Development' is a multidimensional concept which is contested both theoretically and politically. Recently it has taken on the limited meaning of the practice of development agencies, especially in aiming at reducing poverty and achieving Millennium Development Goals (Thomas, 2004). Further it is argued that 'development' encompasses continuous change in several aspects of human society. Thus, the dimensions of development include economic, social, political, legal and institutional, the environmental, religious and cultural aspects. However, historically the most widely and dominated meaning of development refers to the temporal increase of the Gross National Product (GNP), although, development measured in terms of money values has been questioned and critiqued by many economists including Simon Kuznets (1934), the inventor of Gross Domestic Product. Amartya Sen (1999) in his book "Development As Freedom" argues that the usefulness of wealth lies in things that it allows us to do- the substantive freedoms it helps us to achieve- an adequate conception of development must go much beyond the accumulation of wealth and the growth of gross national product and other income related variables. Realising the intrinsic complexities and inadequacies of GNP, alternative models of development are being experimented over the time with an emphasis on macroeconomic levels of development presupposing that economic growth will trickle down to the unreached at the bottom end of the scale. There are a good number of proposed models to explain how economic systems develop to generate growth (Schumpeter, 1934; Ramsay, 1928; Allias, 1947; Solow, 1956; Romer, 1986 and Galor and Moav, 2004).

TRIAL SAMPLE

Moreover, development is seldom considered as an automatic process or a 'divine bliss'. On the other hand, policy makers at different levels have been trying their best to put in place several pragmatic policies and programme to promote positive changes. Countries as well as the international development community have adhered to several 'Development Paradigms" in different periods which can be grouped under three broad paradigms of development viz. (a) Classical (includes Neo-classical) based on the principle of laissez-faire and aggregate theory of development, (b) Keynsian-Kaleckian model with an emphasis on the government intervention to maintain the level of full employment and (c) Marxian model of conflict for a socialist society. Further, the concept of development after the United Nations Conference in Stockholm in 1972 has moved from a narrow and exclusively economic view point to a more integrating concept bringing within its ambit many other dimensions of development such as Fulfilling the Basic Needs (ILO, 1976), Indigenous Development (ILO, 1989), Sustainable Development (UN, 1985), Women Development (UN, 1989), Human Development (UNDP, 1990), Social Development (UN, 1995), Capability Development (UNDP, 1996), Right to Development (UNDP, 2000), Millennium Development Goals (2000), Removal of Rural Poverty (World Bank, 2000-01), Twin-Track Approach (FAO, 2003) and Territorial Development (FAO, 2005).

Similarly, several approaches and strategies have also been emphasized. They are top-down, egalitarian, pro-poor, autonomous, induced, bottom-up, participatory, low wage –industry led, low wage labour intensive export led, agriculture based, endogenous growth based, rural development, Washington Consensus based, strategic openness based and FDI based development. In recent years, however, three dimensions of development such as, Complete Eradication of Poverty, Human Development and Sustainable Development are widely discussed and programmes are designed country wise. According to Kumar (2005) the development dimensions in the context of any country or region or within a particular regime become still more complex and move beyond the question of fulfilling the basic requirements of life.

Recently, the declaration of G8 Summit -2009 on global governance and global food security has emphasized more on development objectives than instruments and processes required to achieving them. Some of the 'development recipes' are economy-wide growth, increased agricultural production and productivity,

support to small scale industries, promotion and transfer of low carbon technologies etc.

From the above discussion one may be tempted to conclude that it is not only a herculean task to conceive and conceptualize the meaning of the term 'development' but also increasingly difficult and daring too to revisit all its dimensions. Lall (2001) is correct when he says that the appropriate development strategy for any country depends not only on its objective economic situation but also on its government policies and national views regarding the appropriate role of the state.

1.1 Development of Backward Regions

Any initiative for economic development at the regional level presupposes a proper understanding of the term, 'region'. Terms like 'space' and 'region' are defined differently in different contexts in different disciplines. In common parlance 'region' means a contiguous geographical area. It is for the first time I. R. Boudeville (1968) tried to view economic region and geographic space from different perspectives. He used three criteria such as (a) homogeneity criterion, (b) polarization (nodality) criterion and (c) programming (planning) criterion in order to give a specific meaning to the term 'region'. On the basis of homogeneity criterion, there are regions with homogeneous spatial and economic characteristics. Secondly, the nodality criterion analyses polarization around an urban or a market centre within a given region. It is associated with the relationships constructed by the flows of inputs and outputs characterizing human activity. Finally, on the basis of planning/programming criterion regions are created for administrative and political purposes.

A careful examination of the above concepts reveals that they are not completely independent. In fact, some sort of inter-dependency is there. The programming regions do have homogeneity and also possess some nodal points. A more acceptable criterion is polarization which is used for policy and planning purposes. An ideal 'region' is one with the following characteristics:

(i) Geographically, it should be a contiguous unit though it could be sub-divided into natural boundaries like plain, hilly track etc.

(ii) The people of the region should have social and cultural cohesion.

(iii) The region should be a separate unit for data collection and analysis.

(iv) The region should have an economic existence, which can be

assessed from statistical record.

(v) It should be under one administrative agency.

(vi) It should have fairly homogeneous economic structure. It should be more or less homogeneous in topography also.

(vii) There should be common appreciation of local problems and common aspirations and approaches to their solution. It should permit and encourage competition but not rivalry.

If we examine the above characteristics, Administrative units, whether at the national level or state level or district level appear to satisfy most of the characteristics of a region. Thus, for planning purposes administrative units should be considered as the region. These regions can further be classified according to their sizes. Thus broadly there are three types of planning regions.

(I) Macro region

(II) Meso region, and

(III) Micro region

Macro-region is one that comprises of meso and micro regions and this may be as large as a country. This is suitable for national planning. Meso regions (States) are smaller than a country or macro region and bigger than a micro region. Meso region may be as big as a state or a group of states and is fit for State level plan. Micro regions are the smallest in size and they may range from a group of talukas or a taluka to a group of districts and are suitable for spatial planning at local level.

Moreover, the term region is used not only as a geographical space but also as an area with identifiable, economically, homogenous characteristics of labour and capital distinguished from other national or international regions (Ohlin, 1967). Similarly, two economists of repute Perroux (1950) and Myrdal & Sitohang (1957) used regions at the sub national level and considered them as different but related to the dimension of international spatial distribution of economic activities and resources.

The pattern of classification followed in developed Western Europe and the United States is as follows:

(1) Over developed or congested regions where additional infrastructure can be provided at a higher marginal cost which will cause loss of resources to the people of other regions.

SAMPLE